Claims:

1. A reversible, pneumatic ground piercing tool, comprising:

an elongated hollow body having a front nose and a rear opening;

a striker disposed for reciprocation within an internal chamber of the body to impart impacts thereto for driving the body through the ground, the striker having a rearwardly opening recess and a rear radial passage through a wall enclosing the recess, a front portion having a front bearing thereon for sliding contact with a first inner surface of the body and passages permitting flow of pressure fluid to a front, variable-volume pressure chamber ahead of the striker, and a rear portion having a rear bearing thereon rearwardly of the radial passage for sliding contact with a second inner surface the body;

a stepped air inlet conduit which cooperates with the striker within the internal chamber of the body to reciprocate the striker and impart blows to a front end wall of the internal chamber under the action of a pressure fluid fed into the rear recess in the striker, followed by reverse movement of the striker when the rear radial passage moves past a front edge of the step of the stepped air inlet conduit, and exhaust of compressed air when the rear radial passage moves past a rear edge of the step of the stepped air inlet conduit;

a tail assembly mounted in the rear opening of the body that secures the air inlet conduit in the body, wherein the tail assembly has exhaust passages therethrough, at least a potion of each exhaust passage angling radially inwardly to communicate with a central hole at the rear end of the tail assembly, whereby exhaust escapes through the central hole; and

a mechanism that reverses the direction of travel of the tool by causing the striker to impact against the tail assembly instead of the front end wall of the internal chamber of the body.

2. The tool of claim 1, wherein the angled portion of each exhaust passage extends at an angle of from 10 to 20 degrees relative to a lengthwise axis of the tool.

3. The tool of claim 1, wherein the tail assembly comprises:

a tail nut threadedly secured to the body inside the rear opening thereof and having a central opening through which the air inlet conduit extends and a plurality of threaded, rearwardly opening holes therein;

an end cap disposed to fit over the rear opening of the body, the end cap having openings therein in alignment with the threaded holes in the tail nut and forming the central hole through which the air inlet conduit passes; and

a plurality of bolts which extend through the openings and are threadedly secured in the threaded holes in the tail nut so that the end cap is securely clamped to the tool body and an axial clamp load is applied to the tail nut;

wherein the tail nut and end cap have the exhaust passages therethrough, at least a potion of each exhaust passage angling radially inwardly to communicate with the central hole in the end cap, whereby exhaust escapes through the central hole about the outside of air inlet conduit.

4. The tool of claim 3, wherein portions of the exhaust passages extending through the end cap extend at an angle radially inwardly in a front to rear direction to communicate with the central hole.

5. The tool of claim 4, wherein portions of the exhaust passages extending through the tail nut extend in parallel to a lengthwise axis of the tool.

6. The tool of claim 3, wherein the exhaust passages end in outlet holes in an end wall of a rearwardly opening recess in the end cap, and the end cap has a rearwardly tapering, conical rear end portion that at least partially overlies the outlet holes but is spaced therefrom.

7. The tool of claim 6, wherein the conical rear end portion has a series of cutouts in its outer periphery thereof to permit access to the openings in the end cap from outside of the end cap.

8. The tool of claim 7, wherein the cutouts are in the form of outwardly opening, rounded grooves which do not communicate with the central hole.